

YUDIN, V. M., POLYAKOV, V. D., and SMOLENSKIY, G. A.,

"Investigation of New Magnetically Ordered Systems."

report presented at the Symposium on Ferroelectricity and Ferromagnetism,
Leningrad, 30 May-5 June 1963.

ACCESSION NR: AP4023390

S/0048/64/028/003/0451/0453

AUTHOR: Yudin, V.M.

TITLE: Weak ferromagnetism of BiFeO_3 /Report, Symposium on Ferromagnetism and Ferroelectricity held in Leningrad 30 May to 5 June 1983/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.3, 1984, 451-453

TOPIC TAGS: complex ferrite, bismuth ferrite ferromagnetism, weakly ferromagnetic antiferromagnetic material, BiFeO_3

ABSTRACT: The magnetic properties of the solid solution $0.9\text{BiFeO}_3-0.1\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$ were investigated with a magnetic balance, employing the Faraday method. The investigation was undertaken because BiFeO_3 is known to have the perovskite structure with one ferric ion in the unit cell and shows the sharp maximum in the magnetic susceptibility at the Neel point characteristic of antiferromagnetic materials having weak ferromagnetic properties, and yet it has not been possible to observe spontaneous magnetization. Neutron scattering investigations have shown that BiFeO_3 has the type G magnetic structure and has a superstructure due to displaced oxygen. $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$ is antiferromagnetic and has a single perovskite type unit cell,

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ACCESSION NR: AP4023390

rhombohedral below the ferroelectric Curie point (120°C) and cubic above it. The material was produced by solid state reaction of chemically pure Nb_2O_5 and reagent grade pure Bi_2O_3 , Fe_2O_3 and PbO . The polycrystalline samples were annealed at 850°C for three hours, and an x-ray study showed them to be true solid solutions. Magnetic susceptibility measurements showed antiferromagnetic ordering to occur at 610°K . Near this temperature, spontaneous magnetization occurred, but none could be observed at significantly lower temperatures. After the samples had been cooled from above the Neel point to liquid nitrogen temperatures in an 8 kOe magnetic field, however, a spontaneous magnetization of about $0.03 \text{ gauss cm}^3/\text{g}$ was observable at low temperatures. The magnetic orientation produced by this treatment was stable in time and could be destroyed by heating above the Neel temperature and cooling in the absence of a field. The spontaneous magnetization observed cannot be ascribed to ferrimagnetism due to the Fe and Nb ion, for the Nb concentration is too small and there is no Fe-Nb ordering in pure $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$. It is concluded, therefore, that BiFeO_3 is weakly ferromagnetic. It is suggested that the effect of the addition of a small quantity of $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$ is to reduce the magnetic rigidity of the BiFeO_3 and thus make it possible to observe the spontaneous magnetization.

"The author expresses his gratitude to Professor G.A.Smolenskiy for his interest in the work and discussion of the results, to Ye.S.Sher for preparing the samples, and

Card 2/3

ACCESSION NR: AP4023390

to A.G.Tutov for x-ray studies." Orig.art.has: 1 formula and 2 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: PH

NR REF SOV: 005

OTHER: 001

Card 3/3

1. $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$ $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$ $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$ $\frac{1}{2} \leq \frac{1}{2} \leq \frac{1}{2}$

ACCESSION NO: AFS07668

Author: Szelecsenyi, G. A.; Yudin, V. M.

TITLE: Laser Irradiation of $\text{Fe}^{3+}\text{FeO}_3\text{--PbF}_2$ and

SOURCE: Filitsa tvrdogo tela, no. 12, 1981, 1981

TOPIC TAGS: element inorganic compound, ferromagnetism.
solution

ABSTRACT: The study was carried out on polycrystalline α -Fe at 8 kOe, using the Faraday magnetic balance method. The temperature of liquid nitrogen and room temperature were used in a nitrogen atmosphere at a pressure of 10^{-3} mm Hg; at liquid nitrogen

ACCOMPLISHMENT NR: AP5000608

SUBMITTED: 15-11-64

FTB CODE: SS

NR 107 607. 020

Page 3/3

YUDIN, V.M.

Solving the heat-conductivity problem for a semifinite body at
a variable heat-transfer ratio. Inzh.- fiz. zhur. 7 no.12:
90-94 D. '64 (MIRA 18:2)

1. Tsentral'nyy aero-gidrodinamicheskiy institut, Moskva.

1981, 1982

Magnetic properties of ferroelectric solid solution of the
system $\text{BiFeO}_3 - (\text{Fe}, \text{Mn})\text{O}_3$. Izv. AN SSSR. Ser. Fiz. Khim.
1981, 57(10):1036-1038.

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963110010-9

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963110010-9"

NR REP SOV: 009

OTHER: 009

OC
Card 2/2

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963110010-9

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963110010-9"

L 21220-66

with both a weak electrophilic and a

L 02966-67 EWI(d)/EWI(m)/EWP(y)/T/EWP(t)/ETI/EWP(k)/EWP(l)/EWP(r)
 ACC NR: AP6032555 (N) SOURCE CODE: UR/0125/66/000/009/0054/005

AUTHOR: Krivosheya, V. Ye.; Yudin, V. M.

ORG: Ural Chemical Machinery Plant (Uralkhimmashzavod).

TITLE: New guns for manual argon shielded arc welding of titanium articles

SOURCE: Avtomaticheskaya svarka, no. 9, 1966, 54-56

TOPIC TAGS: titanium, ~~welding~~, welding technology, welding equipment, welding gun, ~~argon shielded arc welding~~

ABSTRACT: Two guns for manual argon shielded arc welding of titanium have been developed. The salient feature of both guns is the gas-nozzle diameter (30—50 mm) which produces a wide laminar low-velocity gas stream extending up to 120 mm from the tip of the nozzle. Welding is performed with the argon flow directed against the direction of welding. The stream of argon spreads over the welded joint and adjacent hot zone, protecting them from oxidation. One gun (see Fig. 1) is equipped with automatic feed of the filler wire. It differs from standard guns in that the electrode (16) and gas nozzle (15) are separated: with the electrode in the vertical position, the gas enters the welding zone at an angle of 25—30°. Filler wire is fed automatically through the nozzle (14). The new welding guns simplify the process of welding titanium alloys and give adequate protection against

Card 1/2

UDC: 621.791.856.03:669.295

, L 02966-67

ACC NR: AP6032555

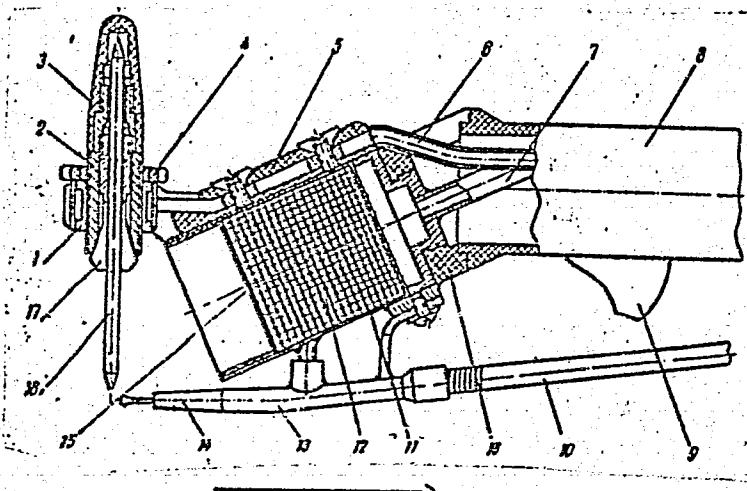


Fig. 1. Gun for argon shielded arc welding of titanium

1, 2, 3, 4, 16, 17 - Electrode holder; 11, 12, 15 - gas nozzle; 10, 13, 14 - filler wire feed mechanism; 5, 6, 7, 8, 9 - gun holder.

Direction of welding

oxidation of metal, obviating the use of additional devices. Orig. art. has: 4 figures.

SUB CODE: 11, 13/ SUBM DATE: 10Feb66/ ATD PRESS: 5099

Cord 2/2 LC

SCIENCE

AUTHOR: Smolenskiy, G. A.; Yudin, V. M.; Syrnikov, E. P.

IN: JOURNAL OF PHYSICS: CONDENSED MATTER, Vol. 1, No. 1, 1989, pp. 1-10, 10 refs.

TITLE: The transparent hexagonal ferrimagnet DyNi_2 .

ABSTRACT: The transparent hexagonal ferrimagnet DyNi_2 was prepared by the Zr-Ni method. The crystal structure, magnetic properties, and optical properties are discussed.

INDEXING: ferrimagnetism, magnetic moment, optical properties, rare earth compounds.

ADDITIONAL INFORMATION: The transparent hexagonal ferrimagnet DyNi_2 has been synthesized by the paramagnetic method. The authors have investigated the magnetic properties of single-crystal samples and the Faraday method, it has been found that the transition temperature is 14 K, and the Curie temperature is 140 K. The single crystals have a position reaction of 100°C. They are transparent and have an interesting feature that in the temperature interval from 0 to 14 K the color continuously from bright green to pink. The magnetic moment exceeds $1.1 \text{ } \mu_B/\text{atom}$, and the dielectric constant is 10. The perfect crystals ($1 \times 5 \times 5 \text{ mm}$) without cleavage have been obtained. The dependence of the paramagnetic susceptibility on the temperature is discussed.

2-10-1964
 100-44111-1

... ferrimagnetic ... magnet ...
 ... the magnetic moment ...
 ... the temperature ... the hex ...
 ... it is possible to estimate the ...
 ... and the sum of the ...
 ... The results are ...
 ... ferrimagnetism. The value ...
 ... Although the ...
 ... is found to ...
 ... are difference ...
 ... more than half the ...
 ... point the anisotropy constant ...
 ... magnetic moment. It ...
 ... transparent ferrimagnet ...

CODE: SUBM DATE: PART:

spontaneous magnetization increased monotonically
perceived. Extrapolation of the observed spontaneous
gave a value of 135 gauss (10% for the sample
BiFeO₃). The final temperature decreased linearly
PbO content and was always between
by the presence of PbO. The value of μ_B was
at 1000 K. The value of μ_B was 15,
and the value of μ_B was 15,
best agreement with experimental values of
the temperature of the transition.

[illegible]

point. "The author expresses his gratitude to the

Co: 2/3

L 97572-1
ACCESSION NO. AFS016149

interest in the work and discussion of the res-
nik for a valuable discussion.
figures.

ASSOCIATION: 1000

ENCL

SUBMITTANCE

OTHER

NI 1000 10

SVISHCHEV, B.S.; YUDIN, V.M.; BAZIV, V.F.; IKHSANOV, B.G.

Investigating operations in nonuniform beds of the Romashkino
oil field. Neft.khoz. 43 no.4:40-46 Ap '65.

(MIRA 18:4)

[illegible][illegible]

... Pravoslavno-ritorskiy zhurnal, no. 12, 1901.

14 TMS: heat transfer, heat conduction

1. Problem: The solution of the heat conduction problem in a plate with a time-varying heat transfer coefficient and a variable λ is the heat conduction coefficient of the plate material. The solution is obtained by the Fourier method. The coordinate x by the variable $\eta = x\sqrt{H(t)}$, $H(t) = \int_0^t h(\tau) d\tau$, $h(t) = \alpha(t)T_0$, $T_0 = T_1$.

the temperature of the surrounding medium T_0 is

13

21327-68

SECTION NR: 002051

$$T(x, t) = T_0 + \frac{T_1 - T_0}{1 + \sqrt{2b/\pi}} \operatorname{erfc} \left(\sqrt{\frac{b}{2}} \frac{x}{\sqrt{t}} \right) + \sum_{k=1}^{\infty} c_k \varphi_k(y) \left(1 - \sqrt{\frac{t}{2(A_k + \lambda_k t)}} \right) \exp \left(-\frac{A_k^2 t}{2(A_k + \lambda_k t)} \right)$$

where λ_k and $\varphi_k(y)$ are respectively the positive eigenvalues and eigenfunctions of the equation $Y''(y) + byY'(y) + \lambda Y(y) = 0$ with conditions

$$Y'(0) - Y(0) = 0$$

$$Y(\infty) = 0$$

and

$$c_k = \int_0^{\infty} F(y) \varphi_k(y) dy.$$

Here $U(y) = U(y) = \bar{T}(y)$, where the "stationary" solution

$$U(y) = T_0 + \frac{T_1 - T_0}{1 + \sqrt{2b/\pi}} \operatorname{erfc} \left(\sqrt{\frac{b}{2}} y \right)$$

$$\operatorname{erfc} \left(\sqrt{\frac{b}{2}} y \right) = 1 - \frac{2}{\sqrt{\pi}} \int_0^{\sqrt{\frac{b}{2}} y} \exp(-\eta^2) d\eta.$$

Card 2/3

21327-65

ACCESSION NO: AP5002031

When the substitution

$$y = \frac{a}{\lambda} \left(x - \int_0^t V(\tau) d\tau \right),$$

the solution can be obtained for the case when the heat transfer with the velocity V proportional to the heat transfer coefficient in equations.

ASSOCIATION: Tsentral'nyy aerogidrodinamicheskiy institut
(Central Aerohydrodynamics Institute)

YUDIN, V. M.

42506. Michurinskoye Ucheniye--y Karakulevodstvo. Karakulevodstvo I
Zverovodstvo, 1948, No. 6, S. 6-13.

SM Takzhe No. 41895.

YUDIN, V. M.

All-Union Institute of Animal Husbandry, "An account of the meeting of the Scientific Council of the All-Union Institute of Animal Husbandry on the 19th and 20th of August, 1948, devoted to a summary of the meeting of the All-Union Academy of Agricultural Science imeni V. I. Lenin, according to the report of academician T. D. Iysenko "On the position of biological science" and on the measures in line with introduction of the Michurin tendency in zootechnical science (Reports of I. M. Kuznetsov, S. S. Petrov, and V. M. Yudin, discussions in line with the report and resolutions of soviet science), Vestnik zhivotnovodstva, 1948, Issue 6, p. 3-102.

SO U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

YUDIN, V. M.

Yudin, V. M. "Michurinist studies as a theoretical basis for the breeding of agricultural animals", (A short stenographic report to the conference of the All-Union Scientific-Research Institute for Animal Husbandry), Sov. zootekhnika, 1949, No. 1, p.37-42.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

YUDIN, V. M. (Co-author)

See: KOTOV, M. I.

Yudin, V. M. and Kotov, M. I. "The effect of feed factors on the quality of the young of karkul sheep," Karakulevodstvo i zverovodstvo, 1949, No. 2, p. 9-18.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949)'

YUDIN, V. M.

24877. YUDIN, V. M. Neissyakayemyy Istochnik Nauchnogo Progressa (K 14-y Godovshchinye So Dnya Smerti I. V. Michurina). Sots. Zhivotnovodstvo, 1949, No 3, S. 9-12.

G. Biofizika. Biokhimiya

SO: Letopis' No. 33, 1949

YUDIN, V. M.

Agriculture

Michurin methods of creating new varieties of farm animals; 2., perer. izd. Moskva,
(Pravda) 1950. (Kolkhoznaya seriia).

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED

941751 (ID number)

Yudin V. M.

Al'bom Fo Bonitirovke Karakul'skikh Yagnyat
Moscow, 1951.
381 p.

Pictures and brief text on appraising Karakul lambs based on heredity, prenatal development, type of curl of wool, growth characteristics, etc; published by Board of Foreign Trade.

1. Russia--Domestic Animals.

- i. Album on appraisal of Karakul Lambs.
- ii. Title.

YUDIN, V. M.

Agriculture

Album on the judging of Karakul sheep, Moskva, Vnestorgizdat, 1952.

Monthly List of Russian Accessions, Library of Congress October 1952 UNCLASSIFIED

1. YUDIN, V. M.
2. USSR (600)
4. Sheep Breeding
7. Basic principles of breeding work in sheep raising. Trudy VIZh 20 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

YUDIN, V. M.

Karakul Sheep

"Handbook for selection of karakul lambs."

Reviewed by I. Ya. Aver' Yanov. Kar. i zver. 5

No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952, UNCLASSIFIED

1. YUDIN, V. M., SPIGIZ, C. I.
2. USSR 600
4. Stock and Stockbreeding; Karakul Sheep
7. Variation in heredity and vitality of Karakul sheep depending on age of parents. Sov. Zootekh. 7 no. 4, 1952. Akad.
- 9a Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

YUDIN, V. M. (Acad.)

Stock and Stockbreeding

Principles and methods for improving breeds of farm animals. Sov. zootekh. 8 no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

YUDIN, V.M.

On green ranges. Vokrug sveta no.9:2-7 S '54. (MLRA 7:10)

1. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystven-
nykh nauk imeni V.I.Lenina.

(Stock and stockbreeding)

Name: YUDIN, Vadim Mikhaylovich

Dissertation: Methods of Breeding of Black Astrakhan
Sheep

Degree: Doc Agr Sci

Affiliation: [not indicated]

Defense Date, Place: 7 Mar 56, Council of the All-Union
Sci Res Inst of Animal Husbandry

Certification Date: 28 Apr 56

Source: BMVO 4/57

YUDIN, V. M.

USSR / Farm Animals. Small Horned Stock.

Q-3

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54782.

Author : Yudin, V. M., Briggs, O. I.

Inst : Not given.

Title : Methodical and Organizational Problems in
Karakul Breeding.

Orig Pub: Karakulevodstvo, 1957, No 6, 3-12.

Abstract: No abstract.

Card 1/1

LYSENKO, T.D.; PAPANIN, I.D.; POZDNYAKOV, Ye.V.; VARUNTSYAN, I.S.;
PREZERT, I.I.; LEPIKHIN, A.V.; GRIBANOV, R.N.; YUDIN, V.M.;
GERCHIKOV, N.P.; KORYAZHNOV, V.P.; VSYAKIN, A.S.; IL'INA, Ye.D.

In memory of Petr Aleksandrovich Manteifel'. Agrobiologia
no. 3:453-454 My-Je '60. (MIRA 13:12)
(Manteifel', Petr Aleksandrovich, 1882-1960)

YUDIN, V.M., akademik (Moskva); BRIGIS, O.I., kand.sel'skokhozyaystvennykh nauk (Moskva)

Breeding work in karakul sheep raising. Agrobiologiya no. 3:410-425 My-Je '61. (MIRA 14:5)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni Lenina (for Yudin).

(Karakul sheep breeding)

LEVITSKIY, B.M.; RUSAKOV, A.A.; YUDIN, V.M.; YAL'TSEV, V.N.

Equipment for X-ray diffraction microscopy. Met. 1 Metalloged.
chist. met. no.3:277-283 '61. (MIRA 15:6)
(X rays—Equipment and supplies) (Metallography)

YUDIN, V.M., akademik

Paths of the development of breeding work in Karakul sheep raising. Zhivotnovodstvo 23 no.5:62-71 My '61. (MIRA 16:2)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni Lenina,

(Karakul sheep)

ACC NR: AP6033557

SOURCE CODE: UR/0181/66/008/010/2965/2969

AUTHOR: Smolenskiy, G. A.; Yudin, V. M.; Syrnikov, P. P.; Shermak, A. P.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov, AN SSSR)

TITLE: The transparent hexagonal ferrimagnet RbNiF_3

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 2965-2969

TOPIC TAGS: rubidium compound, magnetic property, magnetic susceptibility, magnetic anisotropy, Curie point, magnetic structure

ABSTRACT: The purpose of the investigation was to study the magnetic properties of single-crystal RbNiF_3 , both above and below the magnetic-transition temperature. In view of the fact that they were hitherto investigated only in the polycrystalline form in single-crystal form. Transparent RbNiF_3 crystals with low dielectric losses can be of interest for modulation of light beams in microwave devices. The single crystals were obtained by exchange decomposition at 1000°C. The magnetic properties were investigated with a magnetic balance in fields from 2 - 14 kOe. The apparatus was described earlier and was modified to accommodate anisotropic crystals. The reciprocal magnetic susceptibility was measured as a function of the temperature and the magnetic anisotropy components were determined as functions of the field intensity at different temperatures. The results confirm that RbNiF_3 is a ferrimagnet of the ferroplastic type with a Curie point at 1000°C.

Card 1/2

Card 2/2

SMOLENSKIY, G.A.; YUDIN, V.M.

Weak ferromagnetism of some perovskites $\text{BiFeO}_3\text{-Pb}(\text{Fe}_{0.5}\text{Nb}_{0.5})\text{O}_3$.

Fiz. tver. tela 6 no.12:3668-3675 D '64

(MIRA 18:2)

1. Institut poluprovodnikov AN SSSR, Leningrad.

YUDIN, V.S.

Functions of technical councils should be transferred to initial organizations of scientific and technological societies. Za
indus.Riaz. no.2:63 D '61. (MIRA 16:10)

1. Uchenyy sekretar' Ryazanskogo oblastnogo pravleniya Nauchno-
tekhnicheskogo obshchestva legkoy promyshlennosti.

YUDIN, V.V. (Rostov-na-Donu)

In school and at home. Zdorov's 2 no.6:19 Je '56.
(PHYSICAL EDUCATION FOR CHILDREN)

(MLRA 9:8)

KURNOSOV, Anatoliy Ivanovich; YUDIN, Vladimir Vasil'yevich
ALPEROV, Boris Leonidovich
Prof. Dr. Sc. Tekhn. nauk, natom. rel.: OHPAS 0.4,
red.: KVOCHKINA, G.I., red.

[Technology of the manufacture of semiconductor devices]
Tekhnologiya proizvodstva poluprovodnikovyykh priborov.
Leningrad, Sudostroenie, 1965. 247 p. (VINA 18.8

YUDIN, V.Ye.

Removal of an unusual awl-shaped calculus from the bladder. Urologia
21 no.4:58 O-D '56. (MLRA 10:2)

1. Iz khirurgicheskogo otdeleniya (zav. V.Ye.Yudin) Gunibskoy
rayonnoy bol'nitsy (glavnyy vrach - zaslužennyy vrach Dagestanskoy
avtonomnoy respubliki V.V.Balios)
(CALCULI, URINARY) (BLADDER--SURGERY)

TUDIN. V. 11

with the aid of scientific methods
of investigation and analysis
of the data obtained from the
investigation of the case.

"APPROVED FOR RELEASE: 03/15/2001

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APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963110010-9"

YUDIN, V.Ye.; SAZONOV, M.L.; OSIPOV, A.I.

Apparatus for measuring the radioactivity of metal samples.
Zav.lab.21 no.11:1384-1385 '55. (MLRA 9:2)

1. Institut metallovedeniya i fiziki metallov Tsentral'nogo
nauchno-issledovatel'skogo instituta tekhnologii chernoy
metallurgii.
(Radioactivity--Measurement)

JUDIN, V. Ye.

137-58-1-2109

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 286 (USSR)

AUTHORS: Osipov, A. I., Kozhevnikov, I. Yu., Judin, V. Ye., Sazanov, M. L., Bul'skiy, M. T., Alimov, A. G., Skrebtsov, A. M., Rebenko, A. P.

TITLE: A New Method for Speedy Analysis of Slag for Phosphorus by Means of Radioactive Tracers (Novyy metod ekspress-analiza shlaka na fosfor s primeneniym radioaktivnykh indikatorov)

PERIODICAL: V sb.: Fiz. -khim. osnovy proiz-va stali. Moscow, AN SSSR, 1957, pp 82-93. Diskus. pp 160-187

ABSTRACT: A method has been developed for speedy analysis of slag for P_2O_5 by means of radioactive P (I). The analysis requires 5-7 min. The method is accurate to within 5-6 percent (rel.). The consumption of material is 0.04-0.05 millicurie per t of metal. To determine P_2O_5 , I is introduced into the heat in a mixture with powdered Fe. The mixture is placed in a Cu ampoule and the I with the Fe form ferrophosphorus during the period of heating and fusion. This then undergoes uniform dissemination throughout the volume of the heat. Determination of P_2O_5 by radiometry requires one tagged sample in which the P_2O_5 is

Card 1/2

137-58-1-2109

A New Method for Speedy Analysis of Slag for Phosphorus (cont.)

determined chemically. A graph showing determination of P_2O_5 by radiometry as compared with the data of chemical analysis is presented. The employment of radiometric analysis of slag for P_2O_5 makes it possible to take and analyze a large number of samples of slag in the course of a heat.

K. K.

1. Slag analysis--Processes

Card 2/2

YUDIN, V. YE.

DYKHNE, A.M., inzhener; OSIPOV, A.I.; SHVARTSMAN, L.A.; YUDIN, V.Ye.

Formula for calculating the time for the equalization of the composition of the bath in open-hearth furnaces. Zav. lab. 23 no.4:506-507 '57.
(MLRA 10:6)

1. Kuznetskiy metallurgicheskiy kombinat (for Dykhne).
(Open-hearth process)

OSIPOV, A.I., kand.tekhn.nauk; SHVARTSMAN, L.A., doktor khim.nauk;
YUDIN, V.Ye.; SAZONOV, M.L.

Uniform distribution of small additions in slag during steel
smelting in a 350-ton furnace. Probl.metallurg. i fiz.net.
no.6:318-325 '59. (MIRA 12:8)
(Steel--Metallurgy) (Calcium--Isotopes)

YUDIN, Ya.

Record of the Plenum of the Board of the All-Union Scientific
Society of Dermatovenereologists. Vest. dermat. i ven. 39 no.4:
87-90 Ap '65.
(MIRA 19:2)

SELIVANOV, V.P.; YUDIN, Ya.B.

Organization of surgical care for osteotuberculous patients
in Stalinsk. Zdrav.Ros.Feder. 3 no.6:24-27 Jo '59.

(MIRA 12:6)

1. Iz Kemerovskogo oblzdravotdela i kostnotuberkuleznogo
otdeleniya (zav. Ya.B.Yudin) Stalinskoy gorodskoy bol'nitsy
No.22 (glavnyy vrach N.N.Beresneva).

(STALINSK--BONES--TUBERCULOSIS)

YUDIN, Ya. B.

Surgery in healing tuberculous coxitis. Sov. med. 23 no.3:119-124 M-
'59. (MIRA 12:4)

1. Iz khirurgicheskogo otdeleniya (zav. - zasluzhennyi vrach RSFSR S.
M. Avramov) bol'nitsy No.22 (glavnyi vrach N.N. Beresneva) g. Stalina.
(TUBERCULOSIS, OSTEOARTICULAR, surgery,
hip (Rus))

YUDIN, Ya.B.

Surgical therapy in tuberculous spondylitis. Probl.tub. 38
no.6:59-65 '60. (MIRA 13:11)

1. Iz kostnotuberkuleznogo otdeleniya (zav. Ya.B. Yudin) bol'nitsy
No.22 Stalinska (glavnyy vrach N.N. Beresneva). Nauchnyy rukovo-
ditel' - prof. N.I. Krakovskiy.
(SPINE--TUBERCULOSIS)

YUDIN, Ya.B.

Surgical treatment of tuberculosis of the sacroiliac joint.
Ortop.travm.i protez. no.6:20-24 '61. (MIRA 14:8)

1. Iz kostnotuberkuleznogo otdeleniya (zav. - Ya.B. Yudin)
bol'nitsy No.22 (glavnyy vrach N.N. Beresneva) g. Stalinska.
(SPINE--TUBERCULOSIS)

YUDIN, Ya. B.

Some characteristics of the surgical treatment of thoracolumbar tuberculous spondylitis complicated by draining abscesses. Khirurgiya no.2:112-115 '62. (MIRA 15:2)

1. Iz kostnotuberkuleznogo otdeleniya (zav. Ya. B. Yudin) bol'nitsy No. 22 (glavnyy vrach N. N. Beresneva) Novokuznetska. Nauchnyy rukovoditel' raboty - prof. N. I. Krakovskiy.

(ABSCISS) (SPINE--TUBERCULOSIS)

YUDIN, Ya.B. (Stalinsk, Kemerovskaya obl., ul. Kutuzova, d.7, kv.50)

Surgical treatment of tuberculosis of the thoracic segment of
the spine. Vest.khir. 87 no.11:72-76 N '61. (MIRA 15:11)

1. Iz kostno-tuberkuleznogo otdeleniya (zav. - Ya.B. Yudin)
bol'nitsy No.22 g. Stalinska.
(SPINE--TUBERCULOSIS)

BOLDIN, K.M. (Yaroslavl'); DROZDOVA, Z.S.; LEVIN, R.I.; VAYSMAN, L.A.
 (Kuybyshev-obl.); PODOSINOVSKIY, V.V. (Kazan'); SAYFULLINA, E.M.
 (Kazan'); TULYAIN, N.M. (Kazan'); RAZUMOVSKIY, YU.S. (Leningrad);
 GEL'FER, G.A., dotsent (Gor'kiy); MANISH, V.M. (Kazan');
 M.B., dotsent; MEL'NICHUK, S.P., kand.med.nauk; MEL'NIN, V.I.;
 STAROVEROV, A.T. (Saratov); SURIN, V.M.; POROSHENKOV, A.S. (Romodanovskiy,
 Mordovskoy ASSR); ANDROSOV, M.D. (Moskva); ZARIFOV, Z.A. (Urumsu,
 Tatarskoy ASSR); MURAV'YEV, M.F. (Izhevsk); KUZ'MIN, V.I. (Batyrevo,
 Chuvashskoy ASSR); SITDYKOV, E.N. (Kazan'); YUDIN, Ya.B. (Novokuznetsk).

Short reports. Kaz.med.zhur. no.4:81-91 J1-Ag '62. (MIRA 1962)
 (MEDICINE--ABSTRACTS)

YUDIN, Ya.B., kand.med.nauk

Early resections in osteoarticular tuberculosis. Probl.tub.
no.7:51-55 '62. (MIRA 15:12)

1. Iz kafedry travmatologii i ortopedii (zav. - prof. L.G.
Shkol'nikov) Novokuznetskogo instituta usovershenstvovaniya
vrachey (dir. - dotsent G.L.Starkov) i kostno-tuberkuleznogo
klinicheskogo sanatoriya No.5 (glavnyy vrach M.G.Bekish
(BONES--TUBERCULOSIS) (JOINTS--TUBERCULOSIS)

YUDIN, Ya.B., kand.med.nauk (Novokuznetsk, Kemerovskoy oblasti, ul.
Kutuzova, d.7, kv.50)

Abstracts of articles received by the editors. Ortop., travm.i
protez. 24 no.9:48 S '63. (MIRA 17:4)

1. Iz kafedry travmatologii i ortopedii (zav. - prof. L.G.Shkol'nikov) Novokuznetskogo gosudarstvennogo institut dlya usovershenstvovaniya vrachey (rektor - dotsent G.L.Starkov) i kostnotuberkuleznogo klinicheskogo sanatoriya No.5 (glavnyy vrach - M.G.Bekshi).

YUDIN, Ya.B., kand. med. nauk (Novokuznetsk, Kemerovskoy oblasti, ul. Kutuzova, d.7, kv.50)

Arthroplasty and intra-articular necrectomy in tuberculosis of the elbow joint. Ortop., travm. i protez. 25 no.9:34-39 S '64. (MIRA 18:4)

1. Iz kafedry travmatologii i ortopedii (zav. - prof. L.G.Shkol'nikov) Novokuznetskogo instituta usovershenstvovaniya vrachey (rektor - dotsent G.L.Starkov) i kostno-tuberkuleznogo klinicheskogo sanatoriya (glavnyy vrach - M.G.Bekush).

YUDIN, Ya. R., kand. med. nauk

Early intra-articular necrectomy in tuberculous exzitis. Probl. tub.
42 no.11:14-18 '64. (MIRA 18:8)

1. Kafedra travmatologii i ortopedii (zav. - prof. I.G.Shkol'nikov)
Novokuznetskogo instituta usovershenstvovaniya vrachey i
kostnotuberkuleznyy klinicheskiy sanatorii Nr.5 (glavnyy vrach M.G.
Bekish).

SHKOL'NIKOV, L.G., prof. (Novokuznetsk, Kemerovskoy obl. prospekt Metallurgov, d. 34, kv.27); YUDIN, Ya.S., kand. med. nauk

Designation and classification of mobilizing operations in osteoarticular tuberculosis. Ortop., travm. i protez. 26 no.7:25-31 JI 1961.

(MIRA 18:7)

1. Iz kafedry travmatologii i ortopedii (zav. - prof. L.G.Shkol'nikov) Novokuznetskogo instituta usovershenstvovaniya vrachey (red. G.I.Starkov).

YUDIN, Ya. L.

"Qualitative Indices of the Work of Dermato-Venereological Institutions," p. 58

Handbook on the Organization of the Control of Venereal and Infectious Skin
Diseases, Moscow, Medgiz, 1957 edited by N. M. Turanov and A. A. Studnitsin

with G. I. Yegorov, "The Organization and Methods of Controlling Pyodermatoses
in Industry and Among Agricultural Workers," p. 129, *ibid.*

YUDIN, YA. M. AND V. M. KAPLAN

Organizatsiia kapital'nogo stroitel'stva na mashinostroitel'nykh zavodakh.
Moskva, Mashgiz, 1949. 203 p.

Organization of main construction work in machine-building plants.

DLC: TH4541.18

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

YUDIN, Ya. M.

Pamiatka kochegara; pod red. P. S. Kibrika. Moskva, Gosanergoizdat, 1949. 236 p. diagrs.

Instructions for stokers.

DLC: TJ289.I9

S0: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953

YUDIN, Ya. M.

Technology

Mechanic's handbook on steam turbines of low capacity, Moskva, Gosenergoizdat, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified

YUDIN, Ya. M.

KAZINITSKIY, M.I.; YUDIN, Ya.M.; POPOV, A.N.. chlen korrespondent
Akademii arkitektury SSSR.

[Capital construction in the building materials industry; organization and planning] Kapital'noe stroitel'stvo v promyshlennosti stroitel'nykh materialov; organizatsiya i planirovaniye. Pod red. A.N. Popova. Izd.2., dop. i perer. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1954. 342 p. (MLRA 7:7)

(Building materials industry) (Factories--Design and construction)

YUDIN, Yakov Markovich; MIKHAYLOV, V.N., red.; POZHENYAKOV, D.A.,
tekhn.red.

[Establishing standards for material consumption and methods for
saving materials in the construction industry] Normirovanie
raskhoda i puti ekonomii materialov v stroitel'stva. IAroslavl',
TSentr.biuro tekhn.informatsii, 1959. 45 p. (MIRA 13:5)
(Building materials)

ALEKSANDER, I.; BUTOVSKIY, Ya.; YUDIN, Ye.

Discussion on the number of channels and sound quality of
stereophonic films. Tekh.kino i telev. 4 no.10:61-67 0'60. (MIRA 13:10)

1. Kinostudiya "Lenfil'm."
(Motion pictures) (Stereophonic sound systems)

YUDIN, Ye.

Mobilize all forces to fulfill the preCongress socialist obligations.
Sov.profsoiuzy 17 no.4:9-11 F '61. (MIRA 14:2)

1. Predsedatel' zakoma profsoyuza Moskovskogo kombinata tverdykh
splavov.

(Moscow--Metal industries)
(Moscow--Socialist competition)

POPOVA, V.N., inzh.; YUDIN, Ye.A., inzh.

Delinting cotton seeds and their physicomachanical properties.
Masl. - zhir. prom. 27 no.8:19-22 Ag '61. (MIRA 14:8)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta zhirovo (for Popova). 2. Gosudarstvennoye spetsial'noye
konstruktorskoye byuro po khlopkoочистке (for Yudin).
(Cottonseed) (Linters)

ACC NR: AP7000370

(N)

SOURCE CODE: UR/0413/66/000/022/0158/0158

INVENTOR: Gol'din, A. I.; Smirnov, A. K.; Yudin, Ya. B.

ORG: none

TITLE: Device for compensating a vessel's heel against a gust of wind. Class 65, No. 188855

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 158

TOPIC TAGS: marine engineering, ship component, ~~ship navigation, navigation equipment~~
gyroscope, electric circuit, pressure transducer

ABSTRACT: An Author Certificate has been issued for a device for compensating a vessel's heel against a gust of wind, consisting of an automatic rudder with control devices and electric power supplies. To achieve partial compensation of heeling moments, decrease the dynamic heeling angles during wind gusts, and assure the automatic return of the ship to its course after the gust has passed, it is equipped with a correcting device made in a form of a chamber with air vents leading in and out and containing electrical contacts and vertically movable disks. These close the appropriate contacts, depending on the wind direction, and a rotating transformer with a stator is connected to the contacts, which change current-supply polarity in relation to the position of the movable disks. A rotor is connected to the automatic rudder's electrical circuit. Also, to calculate the vessel's roll-angle speed, it is equipped with a gyroscopic device, the precession axis of which is located in the vessel's frame, with an electric transducer which feeds signals proportional to

UDC: 629.12.532.5.041:629.12.014.6

Cord 1/2

ACC NR: AP7000370

the rolling speed into the electric circuit of the automatic rudder. Orig. art.
has: 1 figure.

SUB CODE: 13/09/SUBM DATE: 16Jun65/

Cord 2/2

ACC NR: AP7000370

(N)

SOURCE CODE: UR/0413/66/000/022/0158/0158

INVENTOR: Col'din, A. I.; Smirnov, A. K.; Yudin, Ye. B.

ORG: none

TITLE: Device for compensating a vessel's heel against a gust of wind. Class 65, No. 188855

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 158

TOPIC TAGS: marine engineering, ship component, ~~ship navigation, navigation equipment~~
~~gyroscope, electric circuit, pressure transducer~~

ABSTRACT: An Author Certificate has been issued for a device for compensating a vessel's heel against a gust of wind, consisting of an automatic rudder with control devices and electric power supplies. To achieve partial compensation of heeling moments, decrease the dynamic heeling angles during wind gusts, and assure the automatic return of the ship to its course after the gust has passed, it is equipped with a correcting device made in a form of a chamber with air vents leading in and out and containing electrical contacts and vertically movable disks. These close the appropriate contacts, depending on the wind direction, and a rotating transformer with a stator is connected to the contacts, which change current-supply polarity in relation to the position of the movable disks. A rotor is connected to the automatic rudder's electrical circuit. Also, to calculate the vessel's roll-angle speed, it is equipped with a gyroscopic device, the precession axis of which is located in the vessel's frame, with an electric transducer which feeds signals proportional to

Cord 1/2

UDC: 629.12.532.5.041:629.12.014.6

ANDRONNIKOV, K.S.; BALAKOV, V.V.; BUZHINSKIY, A.N.; BURAGO, A.N.; VELTMAN, L.A.; VISHNEVSKIY, A.A.; VOLOSOV, D.S.; GASSOVSKIY, L.N., professor; GERSHUN, A.A., professor; YEL'YASHEVICH, M.A.; YEVSEYEV, K.S.; GUREVICH, M.M., professor; KOLYADIN, A.I.; KORYAKIN, B.M.; KURITSKIY, A.L.; PAPIYANTS, K.A.; PROKOP'YEV, V.K., professor; PUTSEYKO, Ye.K.; REZUNOV, M.A.; RITIN', N.E.; SAVOST'YANOVA, M.V., professor; SEVCHENKO, A.N.; SENNOV, N.I.; STOZHAROV, A.I.; FAYERMAN, G.P., professor; PEOFILOV, P.P.; TSAREVSKIY, Ye.H., professor; CHEKHMATAYEV, D.P.; YUDIN, Ye.F.; KAVRAYSKIY, V.V., professor; VAVILOV, S.I., akademik, redaktor

[Optics in military science] Optika v voennom dele; sbornik statei. Pod red. S.I.Vavilova i M.V.Savost'ianovoi. Izd. 3-e, znovo perer. i dop. Moskva. Vol.2. 1948, 387 p. (MIRA 9:9)

1. Akademiya nauk SSSR. 2. Sostaviteli - sotrudniki Gosudarstvennogo Opticheskogo instituta (for all excpt Vavilov and Kavrayskiy)
3. Voenno-morskaya akademiya (for Kavrayskiy)
(Optics)

ACC NR: AP7000370

the rolling speed into the electric circuit of the automatic rudder. Orig. art.
has: 1 figure.

SUB CODE: 13/09/SUBM DATE: 16Jun65/

Card 2/2

YUDIN, Ye.F.; KRYLOV, I.S.

Using telephotometers in measuring contrasts of landmarks from
airplanes. Opt.-mekh.prom. [25] no.3:9-12 Hr '58. (MIRA 11:9)
(Aerial photogrammetry)

Yudin, Ye. B.

RUSETSKIY, A.A., kandidat tekhnicheskikh nauk; YUDIN, Ye.B., kandidat tekhnicheskikh nauk.

Calculating the effectiveness of rolling dampers with hard over steering gear. Sudostroenie 23 no.4:4-8 Ap '57. (MLRA 10:5)
(Steering gear) (Ships--Hydrodynamic impact)

KHOROSHANSKIY, G.M., kand. tekhn. nauk; YUDIN, Ye. D., kand. tekhn. nauk.

Hydrodynamic characteristics of rolling controlled by side
rudders, Sudostroyeniye 24 no.8-13 O '58. (MIRA 11:12)
(Ships--Hydrodynamic impact) (Stability of ships)

YUDIN, YE. I.

(Yefim Ivanovich)

Call Nr: TS 233.182

AUTHOR: Yudin, Ye. I.
 TITLE: Otlivka detaley v obolochkovyye formy (Precision Casting of Parts)
 PUB. DATA: Gosudarstvennoye izdatel'stvo tekhnicheskoy literatury, Kiyev,
 1957, 69 pp., 1,000 copies.
 ORIG. AGENCY: None given.
 EDITOR: Editor in Chief of the Publishing House: Afonina, G.; Technical
 Editor: Pisarenko, V.; Proofreader: Bobovnikova, L.
 PURPOSE: This pamphlet was written for workers of the machine construction
 industry.
 COVERAGE: The author describes precision casting (also called "investment
 molding), the methods by which the molds and patterns are prepared,
 casting rejects, the methods by which the metal is forced into the
 molds, etc., as well as the experiences of the Khar'kovskiy zavod
 transportnogo mashinostroyeniya (Khar'kov Transportation Equipment
 Construction Plant) in regard to the production of precision cast
 parts. The following personalities are mentioned: Kondrat, V.,
 a Rumanian metallurgical engineer; Cibianu, N., a Rumanian

Card 1/3

Precision Casting of Parts cont.

Call Nr: TS 233.182

metallurgical engineer, both connected with the Rumanian Transportation Equipment Plant "Steagul Rosu" ("Red Banner"). In the author's annotation the method described in this pamphlet is called new. There are 2 references, 1 Russian and 1 Rumanian, which appear in the text in the form of footnotes.

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Precision Casting of Parts, cont.

Call Nr: TS 233.I82

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AVAILABLE: Library of Congress

Card 3/3

137-58-4-6589

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 39 (USSR)

AUTHORS: Yudin, Ye. I., Vygodskiy, I. A.

TITLE: New Technical Processes in the Metallurgical Industry (Novyye tekhnologicheskkiye protsessy v metallurgicheskom proizvodstve)

PERIODICAL: V sb.: Novyye tekhnol. protsessy. Khar'kov, Oblizdat, 1957, pp 5-27

ABSTRACT: Certain advances in the technical processes of "small-scale metallurgy" at the Khar'kov Transportation Equipment Plant are set forth. O₂ is used at this plant to speed the smelting of steel in electric furnaces and to heat liquid iron in cupola receivers and crucibles. The process of developing techniques for the manufacture of cast-iron crankshafts for the TE-3 Diesel locomotive, and the techniques used in casting steel ingots 13.5 t in weight, which are large for this plant, are described. A special section of the article is devoted to precision casting: investment casting, skin dry sand mold casting, chill casting of non-ferrous metals, and also the manufacture of forgings by drop-forging instead of open-die forg-

Card 1/2

137-58-4-6589

New Technical Processes in the Metallurgical Industry

ing. Under the heading "Improvement of Present Technological Processes " we find: a description of the introduction of high-speed alloys, gas-pressed head casting, and the introduction of gas carburizing instead of cementation by a solid carburizer, and other questions.

M. P.

1. Metallurgy 2. Metals--Processes--Development

Card 2/2

SOV/137-57-10-19268

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 118 (USSR)

AUTHORS: Begun, B.Ye., Kvasman, M.G., Yudin, Ye.I.

TITLE: Experiences in the Making of Cast-iron Crankshafts for Main-line Diesel Locomotives (Opyt izgotovleniya litykh chugunnykh kolenchatykh valov dlya magistral'nykh teplovozov)

PERIODICAL: Tekhnologich. transp. mashinostroyeniya, 1957, Nr 2, pp 12-18

ABSTRACT: The casting of crankshafts for the 2000-hp D-100 Diesel has been perfected at the Khar'kov Transportation Equipment Plant. Shafts weighing 1740 and 1490 kg are cast from pig iron of the following % contents: C 2.2-2.4 and alloyed Mo 1, Cr 0.6 and Ni 1. On rupture, $\sigma_b(\text{tension}) > 35 \text{ kg/mm}^2$ and $\sigma_b(\text{bending}) > 70 \text{ kg/mm}^2$. Utilization of metal when the blank is cast is close to 47%, while only 14% of the metal can be used in forging. Horizontal pouring is recommended in single-unit production, as inclined and vertical pouring require the construction of pouring fixtures, although they do increase the yield by 50% relative to horizontal and reduce machining to a minimum. The optimum pouring temperature is 1360-1370°C. A thermit

Card 1/2

SOV/137-57-10-19268

Experiences in the Making of Cast-iron Crankshafts (cont.)

mixture is poured over the risers. The blanks are heat-treated after roughing to relieve stress. Gamma-radiation is used to inspect for internal faults.
E.Sh.

Card 2/2

GORSHKOV, A.A., doktor tekhn. nauk, prof.; VOLOSHCHENKO, M.V.,
kand. tekhn. nauk. Priniral uchastiye YUDIN, Ye.I., inzh.;
STEPIN, P.I., kand. tekhn. nauk, retsenzent

[Cast crankshafts] Litye kolenchatye valy. Moskva, Izd-vo
"Mashinostroenie," 1964. 194 p. (MIRA 17:5)

ELINOV, P.T.; FIRAGO, V.P., kand.tekhn.nauk, red.; OGLOBLIN, A.N.,
dotsent; TUDIN, Ye.M., inzh.; BILINSKIY, M.Ye., red.;
PISKAREVA, N.N., tekhn.red.

[Technology of machining airplane engine parts] Tekhnologiya
mekhanicheskoi obrabotki detalei aviatsionnykh dvigatelei. Pod
red. V.P.Firago. Moskva, Gos.izd-vo obor.promyshl., 1951.
531 p. (MIRA 13:10)

1. Leningradskiy Politekhnikheskiy institut im. M.I.Kalinina (for
Ogloblin).

(Metal cutting)

(Airplanes--Engines)

YUDIN, YEFREM MARKOVICH

PHASE I BOOK EXPLOITATION

167

Yudin, Yefrem Markovich

Shesterennyye nasosy; osnovnyye parametry i ikh raschet (Gear-wheel Pumps; Basic Parameters and Their Design) Moscow, Gosud. izd-vo oboronnoy promyshlennosti, 1957. 139 p. Number of copies not given.

Ed.: Rosenblit, S. Ya., Engr.; Ed. of Publishing House:
Sokolov, A. I., Engr.; Tech. Ed.: Lebedeva, L. A.;
Reviewer: Yasinskiy, S. Ya., Engr.

PURPOSE: This book is for design engineers, engineers of scientific research institutes of machine building, and engineering and technical personnel working in the field of design, manufacture and operation of gear-wheel pumps.

COVERAGE: The author states that in preparing this book he has utilized service experience with pumps in aircraft industry where they are used in fuel supply and lubrication systems and for controlling retractable landing gears and variable-pitch propellers. The following subjects are discussed: design of aircraft fuel supply pumps for high-altitude performance; design and correction of gear tooth profiles with the use of a method developed by the author and

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Gear-wheel Pumps; Basic Parameters and Their Design (Cont.) 167

accepted by the Ministry of the Aircraft Industry; derivation of equations for determining pump theoretical capacity; design of pressure relieving grooves; analytical method for determining gear bearing loads and support reactions; methods and examples of pump design; and the design of special type spring-loaded floating sealing rings. The author claims that the use of such seals cuts down the leakage and increases the volumetric efficiency of a gear-wheel pump up to 95%, which approaches the efficiency of a piston pump. The book includes tables of experimental data on pumps, nomograms for selecting pumps, and charts showing viscosities of domestic oils and petroleum products. No bibliography is listed.

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